

## N.E.W. – DIY HM-2 Build guide

---

The N.E.W. DIY HM-2 is the classic circuit, with additional clipping options as well as the choice to make the “hi color mix” the original single knob for both mid and treble, or to split mid and treble to their own pots.

This guide is intended for people who have some experience building pedals. Component sourcing, component identification, assembly techniques, wiring stomp switches, etc. is not covered. The GCI Brutalist Jr. assembly guide has helpful information for less experienced builders. That guide can be found here: <http://www.kurtballou.com/brutalistjr/>

Don't forget to connect the ground pad of the PCB to the ground lug of the input, output, and DC power jacks!

Due to the scope of this project, technical support is not available. However, consider joining the GCI DIY PCB Builders group on Facebook to get advice from and share your work with other builders. We require that all group members agree to the rules before being accepted into the group. <https://www.facebook.com/groups/2454786551255317/>

Component values for the PCB as well as some alternate values are listed below. This is a BOM for the PCB only. Resistors and diodes are 6.3mm leg spacing, film and ceramic capacitors are 5.08mm leg spacing, and electrolytic capacitors are 2.54mm leg spacing. I/O jacks, DC jack, switches, enclosure, and knobs are not listed. The schematic and a drill template for a 125BB (1590BBM) sized enclosure are also attached.

R1	1M	6MM.3	R0207/3	6mm Resistors
R2	10k	6MM.3	R0207/3	6mm Resistors
R3	1M	6MM.3	R0207/3	6mm Resistors
R4	10k	6MM.3	R0207/3	6mm Resistors
R5	22k	6MM.3	R0207/3	6mm Resistors
R6	100k	6MM.3	R0207/3	6mm Resistors
R7	470k	6MM.3	R0207/3	6mm Resistors
R8	10k	6MM.3	R0207/3	6mm Resistors
R9	100R	6MM.3	R0207/3	6mm Resistors
R10	150R	6MM.3	R0207/3	6mm Resistors
R11	22k	6MM.3	R0207/3	6mm Resistors
R12	100k	6MM.3	R0207/3	6mm Resistors
R13	47k	6MM.3	R0207/3	6mm Resistors
R14	470k	6MM.3	R0207/3	6mm Resistors
R15	120R	6MM.3	R0207/3	6mm Resistors
R16	10k	6MM.3	R0207/3	6mm Resistors
R17	100k	6MM.3	R0207/3	6mm Resistors
R18	220k	6MM.3	R0207/3	6mm Resistors
R19	10k	6MM.3	R0207/3	6mm Resistors
R20	3.3k	6MM.3	R0207/3	6mm Resistors
R21	3.3k	6MM.3	R0207/3	6mm Resistors
R22	10k	6MM.3	R0207/3	6mm Resistors
R23	10k	6MM.3	R0207/3	6mm Resistors
R24	10k	6MM.3	R0207/3	6mm Resistors
R25	100k	6MM.3	R0207/3	6mm Resistors
R26	330R	6MM.3	R0207/3	6mm Resistors
R27	330R	6MM.3	R0207/3	6mm Resistors
R28	82k	6MM.3	R0207/3	6mm Resistors
R29	100k	6MM.3	R0207/3	6mm Resistors
R30	330R	6MM.3	R0207/3	6mm Resistors
R31	10k	6MM.3	R0207/3	6mm Resistors
R32	10k	6MM.3	R0207/3	6mm Resistors
R33	10k	6MM.3	R0207/3	6mm Resistors
R34	1M	6MM.3	R0207/3	6mm Resistors
R35	100R	6MM.3	R0207/3	6mm Resistors
R39	1M	6MM.3	R0207/3	6mm Resistors
D1	1n4148	DO35.2	DO35-2	DO-35 Package
D2	1n4148	DO35.2	DO35-2	DO-35 Package
D3	1n4148	DO35.2	DO35-2	DO-35 Package
D4	1n4148	DO35.2	DO35-2	DO-35 Package
D5	1n4148	DO35.2	DO35-2	DO-35 Package
D6	1n34a	DO07	DO07	DO-07 Package
D7	1n34a	DO07	DO07	DO-41 Package
D8	1N5817	1N5817	DO41-3	DO-07 Package
C1	1n	072X0252	072X025	1000pF - 0.47uF

C2	47n	072X0252	072X025	1000pF - 0.47uF
C3	47n	072X0252	072X025	1000pF - 0.47uF
C4	100p	072X0252	072X025	1000pF - 0.47uF
C5	10u	5mm	050_020_1	0.22 - 100uF
C6	100n	072X0252	072X025	1000pF - 0.47uF
C7	100p	072X0252	072X025	1000pF - 0.47uF
C8	47n	072X0252	072X025	1000pF - 0.47uF
C9	1u	072X0352	072X035	0.15 - 1.0uF;
C10	100p	072X0252	072X025	1000pF - 0.47uF
C11	6.8n	072X0252	072X025	1000pF - 0.47uF
C12	68n	072X0252	072X025	1000pF - 0.47uF
C13	1n	072X0252	072X025	1000pF - 0.47uF
C14	150n	072X0252	072X025	1000pF - 0.47uF
C15	1.5u	072X0502	072X050	2.2uF
C16	1u	072X0352	072X035	0.15 - 1.0uF;
C17	100u	6.3mm	063_025	33 - 220uF
C18	100u	6.3mm	063_025	33 - 220uF
C19	330p	072X0252	072X025	1000pF - 0.47uF
C20	4.7n	072X0252	072X025	1000pF - 0.47uF
C21	100n	072X0252	072X025	1000pF - 0.47uF
C22	470p	072X0252	072X025	1000pF - 0.47uF
C23	47n	072X0252	072X025	1000pF - 0.47uF
C24	100n	072X0252	072X025	1000pF - 0.47uF
BLD	1MB	POT16MM	16MM	Potentiometers
DIST	250kA	POT16MM	16MM	Potentiometers
HIGH	10kB	POT16MM	16MM	Potentiometers
LOW	10kB	POT16MM	16MM	Potentiometers
MIDS	10kB	POT16MM	16MM	Potentiometers
VOL	100kA	POT16MM	16MM	Potentiometers
HARD		SPDT	M9040P	TOGGLE SWITCH
SOFT		SPDT	M9040P	TOGGLE SWITCH
IC1	TL072P	TL072P	DIL08	OP AMP
IC2	TL072P	TL072P	DIL08	OP AMP
IC3	TL072P	TL072P	DIL08	OP AMP
IC4	TL072P	TL072P	DIL08	OP AMP
Q1	2N5457	2N5457	TO92-	N-CHANNEL JFET
Q2	2N3904	2N3904	TO92-	NPN Transistor
Q3	2N3906-	2N3906-	TO92-	PNP Transistor
V	9V input	PAD	SQUARE	PAD
G	ground	PAD	SQUARE	PAD
I	in	PAD	SQUARE	PAD
L+	LED +	PAD	SQUARE	PAD
L-	LED -	PAD	SQUARE	PAD
O	out	PAD	SQUARE	PAD
SPLIT	jumper	jumper	jumper	PAD



